

Suitable With Projection Cams							
Cam Latch/Lock No.	A1002 / A1020 / A1060 / A1102 / A1120 A1130 / A1150 / A1158 / A1160 / A1180 A1190 / A1202 / A1500 / A1540 / A2202 A2300 / A2502 / A2522 / A2600	A1250 / A1252	A1260 / A1262 A1280	A2002	B1120 / B3120	B1080 / B1090 / B1160 B1200 / B1220 / B1240 B1242 / B1280 / B1290 B1320 / B1330 / B1360 B1400 / B1450 / B3040	B1470 / B1472
LH Dimension of Cam Latch/Lock	18,5	30 / 40 / 40 / 50 60	13, 5	20	18	18,5	35
Compatible Cam No.	A0202 / A0210 / A0220 / A0240	A0202 / A0210 A0220 / A0240	A0260	A0202 / A0210 A0220 / A0240	A0202 / A0210 A0220 / A0240	A0202 / A0210 / A0220 A0240	A0202 / A0210 A0220 / A0240

Suitable Without Projection Cams Table 1							
Cam Latch / Lock No.	A2380	A2015 / A2382	A1660 A1666	A1686	A1600 / A1602 / A1604 A1610 / A1612 / A1614 A1640 / A1644 / A1650 A1654	A1610 / A1612 A1614 / A1650 A1654	
LH Dimension of Cam Latch	13,0	16,5 / 20 / 25 / 30	21,5	29	32	32	
Suitable Cam No.	A0270	A0280	A0234	A0280	A0202 / A0210 / A0220 A0240	A0230 / A0232	

Suitable Without Projection Cams Table 2							
Cam Latch / Lock No.	A4600 A4620	A4200 / A4220 / A4240 A4320 / A4340 / A4420 A4440 / A4520 / A4540	B1000 / B1040	B2000 / B2120 / B2080 B2090 / B2160 / B2200 B2240 / B2242	B2290 / B2330 B3000 / B3002 B3080 / B3082		
LH Dimension of Cam Latch	13,5	25	18,5	25	25		
Compatible Cam No.	A0250	A0202 / A0210 / A0220 A0240	A0202 / A0210 A0220 / A0240	A0202 / A0210 A0220 / A0240	A0202 / A0210 A0220		

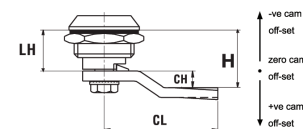
Calculation of Correct Cam Off-set

Cam Off-Set (dimension CH)

To ensure your cam fully and correctly engages with the frame of your door the correct cam off-set must be selected. A cam off-set can be either negative (-ve) or positive (+ve).

Cam Length (dimension CL)

Impacts reach of the cam to door frame and hence impacts positioning of cam body for installation. Cam length or reach is measured from the centre of the cam fixing hole to the cam's leading edge. Typically cams are 45 mm in length.



Use the formula to calculate your correct cam off-set:

$$CH = H - LH$$

CH = the required cam off-set. **H** = distance between inside of lock face and front of cam (also referred to as "grip length"). **LH** = length of cam body to be used (refer to individual cam body data sheets).

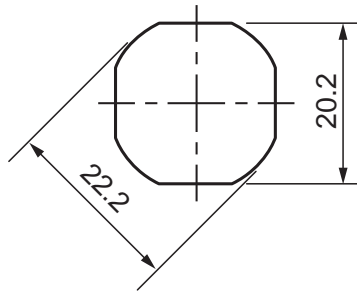
A1002 - A4540

When selecting a Wixroyd Cam Latch for your application, you need to answer these questions:

1. Which installation cut out?
2. Which body style?
3. Which locking key?
4. Which accessories?
5. Which cam type and size?

Step 1: Which Installation Cut Out?

All our Flexi-System cam latches use a standard installation cut out 22,2 dia, 20,2 square, for maximum flexibility.



flexi-system cut out

We also provide a number of alternative cut out dimensions for legacy/historical installations.

Step 2: Which Body Style?

Material and Finish

Select from our variety of die cast zinc, polyamide plastic and stainless versions.



Actuation and Locking Method

Standard insert driver type, cylinder lock or wing handle type.



Number of Latching Points in Application

Typically single point latching is required, but the Wixroyd Flexi-System also provides multi-point latching (typically 3 point - at lock point, top and bottom of cabinet).



Step 3: Which Locking Key?

Standard Insert Driver Keys

Our range of insert driver cam latches require a simple key to actuate. Refer to part A0102 and A0103 for correct keys.



Cylinder Locking

Our cam locks with cylinder locks are supplied with two keys per lock. Available as Euro key 5333, keyed alike or keyed to differ locks.



Step 4: Which Accessories?

- Multi-point latching: use our rod set A0302 or A0324 for suitable rods and rod guides.
- Finger pulls: easily installed with any of our Flexi-system cam bodies, finger pull no. A0352 provides a simple and cost effective handle on your cabinets.
- Dust Cap: to reduce material ingress.
- Fixing Plate: to prevent turning of cam in softer materials such as wood, or where there are larger pre-existing cut outs.



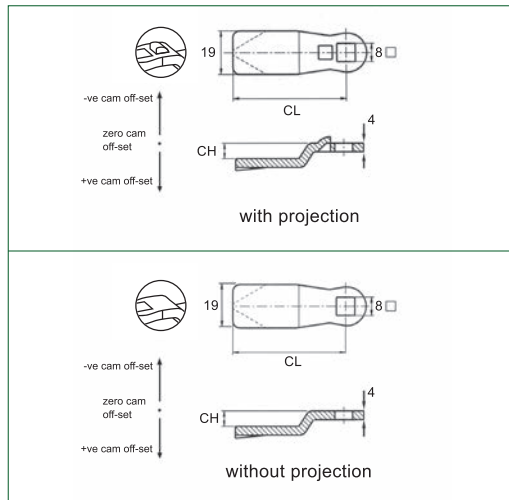
Step 5: Which Cam Type and Size?

Material

Wixroyd cams are available in a number of different materials; zinc plated steel, stainless steel (AISI 304) and black plastic.

With or Without "Projection"

Different cam bodies require cams either with or without projection.



With projection cams prevent turning of the cam over 45°, but is not suited to all cam bodies. For correct projection type please see individual cam body technical pages.

Number of Latching Points

Single point cams are suitable where just single point latching is required. Multi-point cams are for applications requiring 2 or 3 latching points.

Calculation of Correct Cam Off-Set

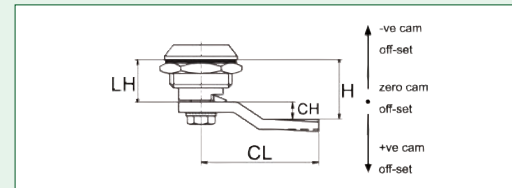
This is the most important aspect of the selection process. As well as being with or without "projection", cams vary in two key aspects.

Cam Length (dimension CL)

Impacts reach of the cam to door frame and hence impacts positioning of cam body for installation. Cam length measured from the centre of the cam fixing hole to the cam's leading edge. Most typically cams are 45 mm in length.

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Use formula to calculate CH (required cam off-set), and refer to the cam selection chart:

$CH = H - LH$ where;

CH = the required cam off-set/height.

H = grip length

(distance between inside of latch face and front of cam).

LH = body length of cam latch/lock to be used (see example below).

Example One

Cam body A1002.ACO010 has been selected for the application. If we refer to the data sheet for this part, suitable cams are parts A0202, A0210, A0220 or A0240 - "with projection".

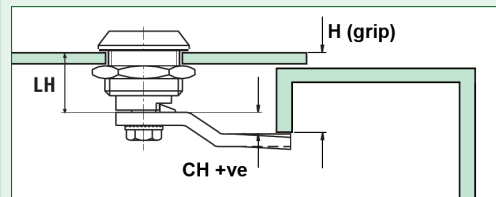
Known application information: $H = 25$. $LH = 18.5$.

Therefore;

$$CH = 25 - 18.5 = 6.5.$$

Cam off set of + 6.5 is required.

Using the data tables for cams A0202, A0210, A0220 and A0240 we can select the following cams with projection with an off set of + 6.5; A0202.AC0406 (steel), A0210.AC0406 (stainless), A0220.AC0306 (plastic) or A0240.ACO407 (three point cam).



Example Two

Cam body A1002.ACO010 has been selected for the application. If we refer to the data sheet for this part, suitable cams are parts A0202, A0210, A0220 or A0240 - "with projection".

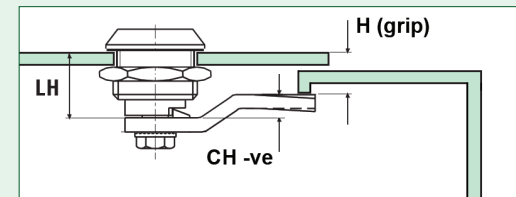
Known application information: $H = 14.5$. $LH = 18.5$.

Therefore;

$$CH = 14.5 - 18.5 = -4.$$

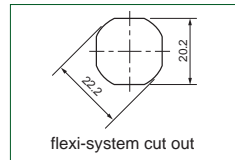
The required cam off set is negative, - 4 as the application's door frame is effectively shorter/lower than the length of the cam body.

Using the data tables for cams A0202, A0210, A0220 and A0240 we can select the following cam with projection with an off set of - 4; A0202.AC0494 (steel) or A0220.ACO474 (plastic).

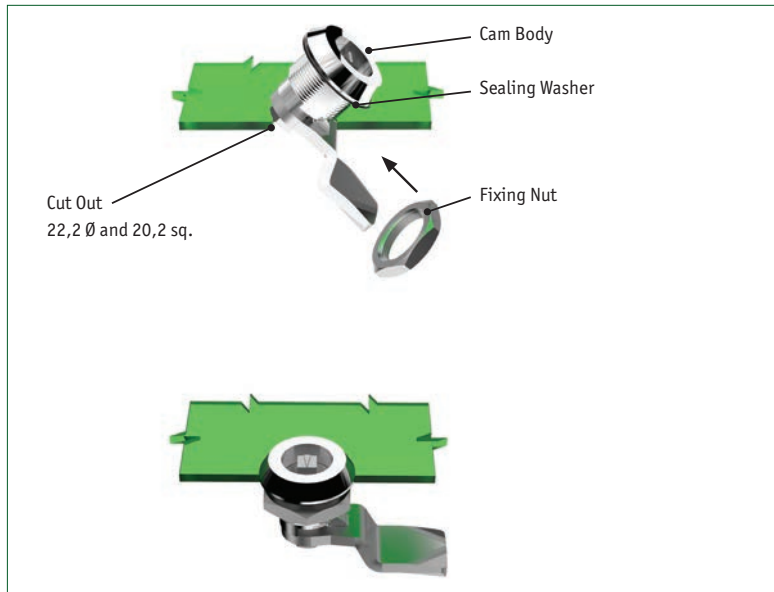


Flexi-System Cut Out

Our flexi-system is based on a standard installation cut out 22,2 Ø and 20,2 sq.



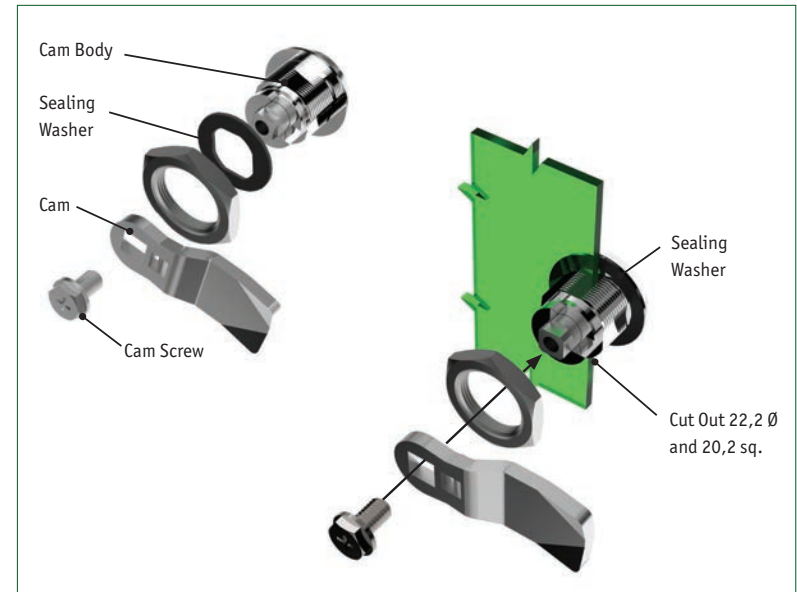
Option 1 - Installation When Fully Assembled



When Cam Latch Grip (H) is 9mm or More this Method is Possible.

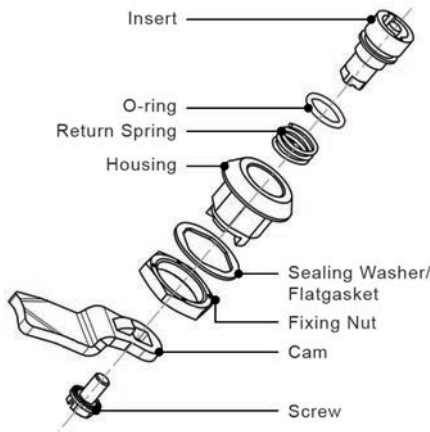
1. With the cam body and cam fully assembled, attach the sealing washer to cam body.
2. Tilt the latch 45° and pass it cam first through the installation cut out in the panel.
3. When in place attach the fixing nut to the cam body to secure. Tighten to 10 Nm max.

Option 2 - Installation Unassembled



When Cam Latch Grip (H) is Less than 9mm this Method is Suitable.

1. Prior to commencing ensure that the cam body, cam, cam screw, fixing nut and sealing ring are completely unassembled.
2. Attach sealing washer to the cam body and pass through installation cut out in panel.
3. Attach the fixing nut to the cam body to secure. Tighten to 10 Nm max.
4. Attach the cam to the cam body. Once you have ensured the cam has the correct orientation toward the panel frame, secure with cam screw and tighten to 4 Nm.



Materials

Zinc

Zinc Alloy is the most fundamental material for the Wixroyd product range. Housings, inserts, handles, spacers, keys, hinges etc, are all die cast products. The zinc used (trading name Zamak 5) is a zinc alloy with the following contents (except zinc):

Al 4,03% Cu 0,83%

As well as minor contents of Mg, Fe, Pb, Cd, Sn and Ni.

Plastic - Polyamide

Many of our products are made of injection moulded plastic, normally polyamide. When needed, we add fibreglass to the material, in order to optimise qualities of the product. Examples of products made out of polyamide: handles, housings, rod guides etc.

Physical and Chemical Characteristics of Polyamide

Physical condition	solid (at 20°C)
Density	> 1,0 g/cm ³
Yield Point	220°C
Smell	No particular smell
Dissolvability in water	Undissolvable
Segregation temperature	> 350°C
Fire Point	>390°C
Auto ignition temperature	> 400°C

RoHS Compliance



Our Cam Latches are RoHS Compliant.

Degrees of Sealing Protection

A product classified to an IP rating has either been tested in an independent laboratory, or due to the resemblance of its structure to a tested product, classified as IP. *Please note: We can only guarantee our products correspond to the indicated classification when assembled and used correctly.*



IP 54: Dust and Splash Protected
This is the standard classification for our products. Equivalent to NEMA3.



IP 65: Dust Tight and Jetting Secure
Through the application of an o-ring and a flat gasket, this higher classification can be achieved.

Flatgaskets/Sealing Washer

Through the application of a flat gasket between the lock and the door, class IP 65 or NEMA 4 is achieved. The flatgasket is made out of a mixture of NBR (Nitrile Rubber) and SBR (Styrolbutadiene Rubber). This gives the gasket a satisfactory chemical resistance and a good constancy to oil.

Character	Value	Standard
Density	1,35 g/cm ³	DIN 53479
Hardness	65 Shore A	DIN 53505
Breaking Strain	5 N/mm ²	DIN 53504
Expansion	200%	DIN 53504
Heat and Cold Resistance	max. 70°C min. -35°C	

Pressure Deformation Test

Time/Temp.	Type of Test	Standard	Result
22h/100°C	DVR	DIN 53517 A	9%
70h/100°C	DVR	DIN 53517 A	12%

O Rings

For all O-rings, an NBR material with the following technical characteristics is used.

Character	Value	Standard
Density	1,240 g/cm ³	DIN 53479
Hardness	71 Shore A	DIN 53505
Breaking Strain	14 N/mm ²	DIN 53504
Expansion	280%	DIN 53504
Recoil Elasticity	32%	DIN 53512
Heat and Cold Resistance	max. 120°C min. -40°C	

